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Review Article

Dentistry Section

To Refer or Not to Refer Periodontally Compromised Patients- What Does Literature Suggest?

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ABSTRACT

Periodontal disease is one of the most common diseases worldwide. Hence, regular and thorough periodontal screening and care is imperative and should be a basis of all oral examinations. General dental practitioners often being the first to diagnose periodontal disease, might play a significant role in the management of periodontally affected patients. It is also necessary to focus on management of the risk factors and modifying factors which might affect periodontal disease and its treatment plan. Irrespective of the treatment being administered by a specialist or general practitioner, it should be ensured that the patients receive the same and best quality treatment. The level of speciality education being limited in the curriculum for undergraduates, general dentists need to be well acquainted with the criteria of timely and appropriate referrals to periodontists. The speciality of periodontology is growing in diverse aspects and various advancements in this field of dentistry have given success predictability level to previously considered unsalvageable periodontal issues. The present article provides useful guidelines for periodontal referral. It elaborates the levels of complexity associated with periodontal treatment and care of periodontally compromised patients in a secondary care setting.

Keywords: Periodontal disease, Periodontist, Referral

INTRODUCTION

"A better life starts with a beautiful smile"- but this smile may get compromised due to various oral health diseases; one of the most common diseases worldwide being 'periodontal disease' [1]. Periodontal disease refers to an inflammatory condition involving the periodontium i.e., the structures supporting the tooth. Its sequelae involves pathological apical migration of gingival soft tissues, alveolar bone resorption and subsequent loss of the tooth [2]. Hence, a foundation of periodontal health is absolutely important to ensure overall patient health and to enable success of subsequent dental treatments [3]. The discipline of periodontology involves the practice of prevention, diagnosis and management of periodontal disease, and also maintenance of periodontal health, thereby restoring the function and aesthetics of the tooth supporting tissues [4].

General dental practitioners often being the first to diagnose periodontal disease, might play a significant role in the management of periodontally affected patients [5]. However, the level of speciality education among them being limited, they should be aware of when and why these patients have to be referred to a periodontist. Referral, defined as taking over care from one healthcare provider to another, is hence crucial and should be an integral part of the present-day dental practice. Knowledge and clinical skill of the referring dentist and the unique needs of the patient should be the basis of such referrals [6].

Components of Referral Process and their Inter-relationship

The referral process includes a triad of components, made up of the referral doctor, referral patient, and the specialist. Active participation of each of these components of the triad is imperative for its success and it requires teamwork, mutual understanding and respect among the team members. In this context, the following should be considered during the referral process [6-10]:

i. **Selection of appropriate periodontist:** Availability, technical competence, previous treatment success record, previous patient satisfaction level, previous positive experience of referral doctor with specialist, good communication skills and ethical practice are considered some of the prime criteria in choosing a specific periodontist.

ii. **Pre-referral communication from the referral doctor to the specialist:** The referral doctor should pass on every possible information to the specialist through a referral letter regarding patient's attitude towards oral health maintenance, any significant medical history that may complicate a proposed treatment, relevant long-term family history and any treatment undertaken so far with response to that treatment. Such communications will help the specialist to hasten the treatment of new patients.

iii. **Communication from the referral doctor to the patient:** The referral doctor should first suitably explain the patient or patient's legal guardian regarding the reason for the recommended referral. He can further help making a specific appointment with the specialist or can provide information about the specialist's fee for the consultation.

iv. **Communication from the specialist to the patient:** The prime role of the specialist periodontist is to make diagnoses and plan the management of referred cases. It is also his responsibility to elaborate the treatment procedure to the patient along with its cost. He should further provide an explanation of its clinical significance, preferably using digital mock-ups in an attempt to motivate the patient to undertake the treatment procedure.

v. **Post-referral communication between the specialist and the referral doctor:** There should be a both-way communication between the specialist and the referral doctor. On one hand, the specialist may provide the referral doctor with an expert opinion and treatment plan while on the other hand, referral doctor should make an attempt to get any input back from the specialist regarding the ongoing treatment. However, each specialist should have a professional responsibility to refer the patient back to the referral doctor so that a healthy give and take relationship is established.

Situations that Demand Periodontal Patient Referral

The British Society of Periodontology and Implant Dentistry has put forward state-of-the-art referral guideline for periodontal treatment

and maintenance [11]. It elaborates three levels of complexity depending on several factors, including:

i. Knowledge, experience and training of oral health care professionals to manage patients with a range of periodontal conditions.

ii. Evidence of genetic and lifestyle/behavioural risk factors.

iii. Grade of the disease based on Basic Periodontal Examination (BPE) score and complexity of treatment required.

Basic Periodontal Examination (BPE) [Table/Fig-1]: The BPE is a rapid and simple screening tool that is used to provide basic guidance on treatment. The BPE should be recorded in the following way:

- The dentition is divided into six sextants and the highest score for each sextant is documented: upper right (17 to 14), lower right (47 to 44), upper anterior (13 to 23), lower anterior (43 to 33), upper left (24 to 27), lower left (34 to 37).
- Each sextant of teeth are thoroughly examined (with the exception of 3rd molars unless 1st and/or 2nd molars are missing).
- Each sextant must contain at least two teeth, otherwise it is considered disqualified for recording.
- A World Health Organisation (WHO) BPE probe is used. It has a 'ball end' having 0.5 mm diameter and a black band from 3.5 mm to 5.5 mm. 20-25 g of light probing force is recommended for use [12].
- Transgingival walking of the probe should be done around the teeth in each sextant. The highest score for a sextant should carefully be assessed and recorded before moving on to the next sextant.

Following are the levels of complexity linked to the appropriate referral of patients in need of periodontal treatment in a secondary care setting [11,12]:

A. Level 1 complexity: Patients who may benefit from general dental practitioner.

- A BPE score of 1-3 in any sextant

B. Level 2 complexity: Patients who would likely benefit from co-management by the referral doctor and the periodontist.

- A BPE score of four in any sextant
- Evidence of furcation defects and other complex root morphologies (delegated by a specialist)
- Requiring non-surgical management of gingival enlargement following consultation with medical colleagues
- Requiring pocket reduction surgeries, preferably under guidance of a specialist
- Management of non plaque induced periodontal diseases, such as virus mediated diseases, autoimmune diseases, abnormal pigmentation, vesiculo-bullous disease, systemic diseases and syndromes having periodontal manifestations under guidance of periodontist
- Peri-implantitis or mucosal inflammation around implant

C. Level 3 complexity: Patients who should be treated by a periodontist.

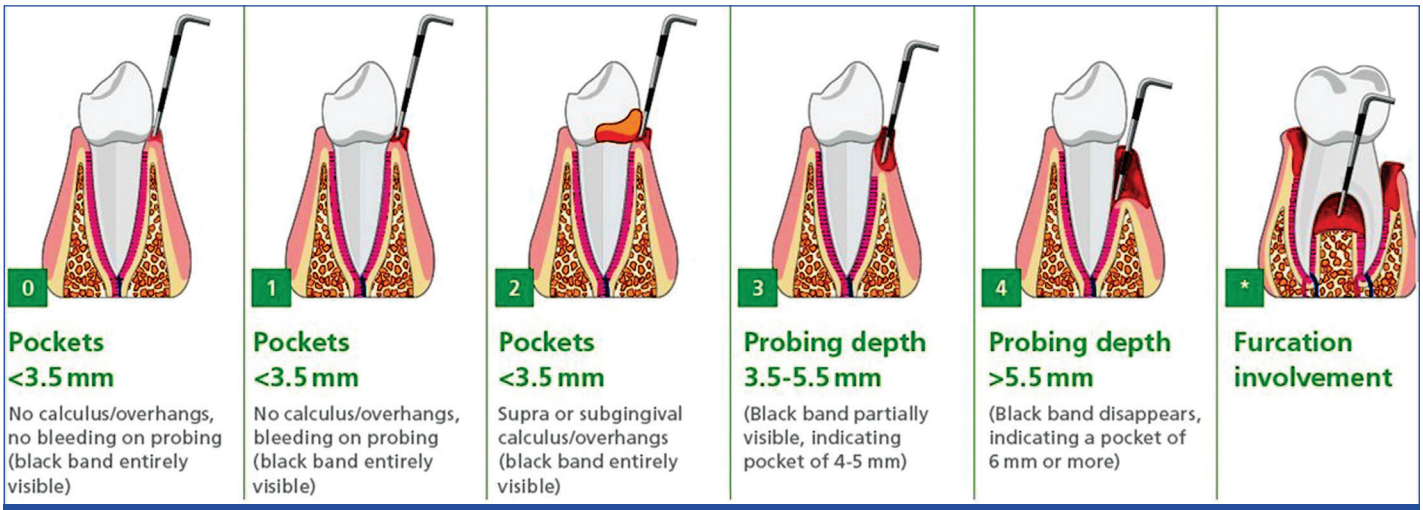
- A BPE score of 4 in any sextant along with Grade C or Stage IV periodontitis (bone loss >2/3 root length)
- Aggressive periodontitis
- Requiring complex periodontal surgery
- Evidence of furcation involvement in multi-rooted teeth and other complex root morphologies not suitable for surgery under guidance
- Requiring surgical procedure involving periodontal tissue augmentation or bone removal
- Non-plaque induced periodontal diseases that solely require specialist mediation
- Patients of level 2 complexity who do not respond to treatment
- Peri-implantitis

Other factors known as modifying factors may deteriorate the complexity level. Modifying factors related to periodontal treatment may enhance the complexity level by one grade. The potent modifying factors include:

- Use of regular intramuscular or intravenous medication for the treatment of underlying medical condition
- History of radiotherapy of head and neck region
- Immunosuppression
- Blood dyscrasias
- History of potential drug interactions
- Requirement of coordinated multi-disciplinary management
- Regular use of tobacco in any form
- Mentally challenged patient
- Known case of mandibular dysfunction
- Atypical facial pain or phantom facial pain
- Retching habit or limited accessibility
- Concurrent muco-gingival disease such as, erosive lichen planus

Factors that Evade Periodontal Patient Referral

In spite of having established guidelines for timely periodontal referral, lack of referral to a specialist prevails in the current dental practice.



[Table/Fig-1]: Basic Periodontal Examination (BPE) scoring system [12].

Reasons for the same have been investigated in various studies, which have come up with the following probable conclusion [13]:

i. Higher educational loans of younger graduates may refrain them from periodontal referral in an attempt to keep more patients in their own practice.

ii. Patient referral has been reported to be common among dentists who practiced with one other dentist compared to solo practitioners or dentists in larger group practices.

iii. More patient referrals have been reported with dentists employing more hygienists than those working with fewer hygienists.

iv. General dental practitioners having more periodontal patients tend to defer referral than those who have fewer patients with periodontal disease.

v. In cases where ignorance of general dentists prevents timely referral.

vi. A lack of communication between general practitioners and periodontists.

vii. Unavailability of periodontists close to the location of the general dentists' practice in a rural area.

viii. Patient's reluctance to undergo specialist care due to lack of dental awareness or financial constraints.

CONCLUSION(S)

'Negligence not only is defined by acts of commission but also includes acts of omission'- not only the general dental practitioners but the specialists of other dental disciplines should also be aware of the fact that a thorough periodontal screening should be performed on a regular basis and irrespective of the purpose of dental visit. They should be aware of the importance of periodontist in multidisciplinary dentistry and should refer the patients identified with periodontal needs to a periodontist in an appropriate, timely manner to curb the disease process at the earliest. However, none of these rules is hard and fast, but is instead a basis for starting a consultation. Understanding one's limitations and expectations can only help guide all dental professionals in treating the patient most effectively and realistically.

REFERENCES

[1] Bhati AK. Referral to a periodontist by a general dentist: An understanding of the referral process. J Dent Res Rev. 2016;3:42-44.
[2] Armitage GC. Clinical evaluation of periodontal diseases. Periodontol 2000. 1995;7:39-53.
[3] Darby IB, Angkasa F, Duong C, Ho D, Legudi S, Pham K, et al. Factors influencing the diagnosis and treatment of periodontal disease by dental practitioners in Victoria. Aust Dent J. 2005;1:37-41.
[4] Specialty definitions: Definitions of recognized dental specialties. Available at: http://www.ada.org/en/education-careers/careers-indentistry/dental specialties/specialtydefinitions.
[5] Wong HMY, Braithwaite J. Practice management: Observations, issues, and empirical evidence. J Periodontol. 2001;72:196-203.
[6] ADA Principles of Ethics and Code of Professional Conduct, Council on Ethics, Bylaws and Judicial Affairs, American Dental Association, 2007.
[7] General Guidelines for Referring Dental Patients (2007) American Dental Association Council on Dental Practice. Available at: http://www1.umn.edu/perio/periocasepresent/text/ADA_Referring_Guidelines.pdf.
[8] Townsend C. Team care for periodontal disease: A model for patient rights. Dent Today. 2004;12:72, 74-75.
[9] Park CH, Thomas MV, Branscum AJ, Harrison E, Al-Sabbagh M. Factors influencing the periodontal referral process. J Periodontol. 2011;82:1288-94.
[10] Cherian DA, Dayakar MM, Thermadam TP. Rationale of referral of patients to a periodontist by general practitioners: Review with a cross-sectional survey. J Interdiscip Dentistry. 2015;5:07-11.
[11] BSP guidelines for periodontal patient referral. Available at: https://www.bsperio.org.uk/assets/downloads/BSP_Guidelines_for_Patient_Referral_202 0.pdf.
[12] BPE Guidelines 2019. Available at: https://www.bsperio.org.uk/assets/downloads/BSP_BPE_Guidelines_2019.pdf.
[13] Lee JH, Bennett DE, Richards PS, Inglehart MR. Periodontal referral patterns of general dentists: Lessons for dental education. J Dent Educ. 2009;73(2):199-210.

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